DOCUMENT RESUME

ED 247 582 CS 208 490

AUTHOR Potter, W. James
TITLE Elaborating the Relationship between TV Viewing and Beliefs about the Real World: Possible Contingent Variables.
PUB DATE Aug 84
NOTE 32p.; Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication (67th, Gainesville, FL, August 5-8, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Beliefs; Concept Formation; Higher Education; *Mass Media Effects; Secondary Education; Social Attitudes; *Social Cognition; Social Theories; Student Attitudes; Television Research; *Television Viewing
IDENTIFIERS *Media Role; *Reality

ABSTRACT

Two studies investigated the validity of the Cultivation Hypothesis, which holds that the more people view television the more they will see the world as mean and violent. Specifically, the study examined whether three psychological variables affected the relationship. The variables are (1) Magic Window, the degree to which a person believes television program content is an accurate picture of reality; (2) Instructional Motives, which refers to the degree to which a person uses television to seek social information; and (3) Identity, the degree to which a person sees a match between characters on television and real people. An instrument was developed to measure these variables and administered first to 92 college students, then to 237 high school students, along with a television viewing questionnaire. Results indicated that subjects in both groups consistently overestimated the danger of being victimized. In addition, the relationship between television viewing and reality estimates was sometimes positive, sometimes negative, and sometimes zero depending upon whether the person was in a high, medium, or low group as defined by the psychological variables. In general, the findings support the Cultivation Hypothesis. (FL)

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ELABORATING THE RELATIONSHIP BETWEEN TV VIEWING AND BELIEFS ABOUT THE REAL WORLD: POSSIBLE CONTINGENT VARIABLES

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By

W. JAMES POTTER

Assistant Professor

College of Communication

Florida State University

Tallahassee, Florida 32308

Paper presented to the Annual Convention of the

Association of Education in Journalism and Mass Communication

Gainesville, Florida

August 1984

CS 208490

ABSTRACT

A contingent relationship was found between the amount of TV a person watches and the person's estimations about the degree to which the world is mean and violent. The simple relationship between these two measures is the foundation of the Cultivation Hypothesis of the Cultural Indicators Project, but that relationship appears to be much more complex. The relationship can be positive, negative or zero depending on how a person rates on three psychological variables: Magic Window, Instructional Motives, and Identity. Magic Window measures the degree to which a person believes TV content is an accurate presentation of reality. Instructional Motives refers to the degree a person uses TV to seek out social information which can be of use in his/her life. Identity measures the degree to which a person sees a match between characters on TV and characters in their real life.

ELABORATING THE RELATIONSHIP BETWEEN TV VIEWING AND BELIEFS ABOUT THE REAL WORLD: POSSIBLE CONTINGENT VARIABLES

One of the most prominent theoretical statements about the effects of television on viewers is the cultivation hypothesis. This hypothesis holds that the more people expose themselves to the television world (which is an extremely mean and violent one), the more people will become cultivated to believe that the real world is mean and violent (Gerbner et al, 1978). This hypothesis has already received a good deal of support in the published literature (Tan, 1979; Bryant et al, 1980; Pingree & Hawkins, 1980; Hawkins & Pingree, 1982). It has also come under some strong criticism (Newcomb, 1978; Wober, 1978; Hirsch, 1981; Hughes, 1981).

The relationship between amount of television viewing and beliefs about the real world (such as the degree of violence or probability of being harmed) is a positive but weak one. Typically correlation coeffients are low. Even when controlling for sex, age, amount of newspaper reading, social class, education, income, race, occupational prestige (each individually and as a group), the correlations between the amount of viewing and various measures of cultivation are typically below .17. Gerbner et al (1981) reply to such criticism by saying that a "small but pervasive influence can make a crucial difference. The 'size' of an 'effect' is far less critical than the direction of its steady contribution." (p. 14) That argument has a great deal of intuitive appeal, still the question remains, "Is this the maximum effect of television?" If television is so pervasive can we be then satisfied to

say that only about 2% to 6% of the variance among people's beliefs about the real world (at least concerning crime and victimization) are explained by the amount of TV viewing?

Over the past half dozen years, this hypothesis has undergone some development by its creators to increase its explanatory power. The main part of its development has been the addition of two concepts: mainstreaming and resonance. Mainstreaming is the convergence of beliefs about the world due to a common experience such as television. Therefore heavy viewers of television, who are in the mainstream of the television world, should all tend to have the same perception of the real world regardless of their educational or SES levels. Conversely, light viewers are not in the television mainstream, and they are therefore expected to exhibit a variety of divergent beliefs about the world.

Resonance is the confirmation of real life with the television world. People who live in high crime areas and who watch a lot of television get a double dose of the mean and violent world. In this case television does not cultivate a viewpoint different from the viewer's real life; television creates a viewpoint that resonates in real life.

These two concepts of mainstreaming and resonance have been shown to increase the predictive power of the cultivation hypothesis. When using these concepts to divide the population into discrete groups of people, the overall relationship between television viewing and beliefs about the world increases to a typical level of about .25 (Gerbner et al, 1981) This refinement, however, might be spurious. Doob and Macdonald (1979) conducted a study to determine if the relationship between the amount of TV viewing and belief in a mean and violent world held constant across neighborhoods which varied in their rates of crime. The authors report

that "when the actual incidence of crime is controlled for, there is no overall relationship between television viewing and fear of being a victim of a crime." (p. 170)

There are two current positions on the cultivation hypothesis. The belief of scholars holding one position is that the correlation coefficients, while low, are exercising a constant effect. Furthermore, the low correlations are not spurious because they hold up even with controls for various demographic variables. The second position holds that the existing correlation coefficients, even at their low levels of magnitude, are spuriously high. When you control for third variables, the relationship disappears altogether.

This is an interesting debate, one that is no doubt only beginning since there are so many variables that could be used to test for the spuriousness of the main correlation. The variables used thus far are limited to demographics. Perhaps the use of psychological variables would be more effective at explicating the zero order general correlations between the amount of TV viewing and belief in a mean and violent world. It is the purpose of this study to argue for the relevance of three psychological variables (Magic Window, Instructional Motives, and Identity) then use these to test the cultivation hypothesis for spuriousness.

Conceptually the Magic Window variable is concerned with perceptions of reality that viewers have for television content. Some people think of television as a magic window on the world which provides them with pictures of how things really are. Other people think of television as a highly stylized representational "art" form which presents messages very different to real life in an effort to remove people from their boring

lives and entertain them. Of course, there exist many gradations of opinion between these two polar extremes.

This Magic Window concern has appeared as a variable in a variety of studies which examined the TV effects process over the past 25 years. It appears that the potential anti-social effects of television are likely to be stronger when the content is perceived as like real life, and weaker when it is seen as fantasy (Himmelweit, Oppenheim & Vince, 1958; Feshbach, 1972; Berkowitz & Alioto, 1973; Noble, 1973; Hawkins, 1977). Himmelweit, Oppenheim and Vince (1958) discussed this concern when they reported that children who watched "realistically" portrayed violence on television felt more uncomfortable than did children who watched violence that was stylized in the mold of typical westerns.

In an experiment with subjects who were nine to eleven years of age, Feshbach (1972) showed either realistic films (documentary treatments of war or campus riots) or fantasy films (Hollywood renditions of war or of campus riots). The subjects then played a game in which they could aggress against a confederate. No difference in game playing aggression between the two treatment groups was observed. Feshbach reasoned that the films were not different enough to allow subjects to see the fantasy films as unrealistic. So in a subsequent experiment, he showed only the realistic films to all subjects telling one group that the film depicted real events while the other group was told that the film was a Hollywood enactment. As a result of this new procedure, a large difference in the level of game playing aggression was found. The group exhibiting the more aggressive behavior was the one which had been told that the film was of a real war.

Berkowitz and Alioto (1973) replicated Feshbach's second study with male college undergraduates. The subjects who were told that the film showed real violence were more aggressive in a game following the viewing than were the subjects who had been told that the film was a Hollywood depiction. Noble (1973) used six- and seven-year-old children in a similar study and found the same results.

Three conclusions can be drawn from this body of research. First, viewers who believe the televised content is real are more likely to be influenced by it than viewers who believe the content is fictional or stylized. Second, sometimes people do not perceive differences between real (documentary representations of real life) and stylized (fictional) content. Third, this influence has been found to hold with children and with subjects as old as college students.

These conclusions provide the basis for some measurement decisions. Since there are individual differences concerning whether a person makes a distinction between reality and fantasy programming, the perceptions of each person should be measured, and it should not be assumed that everyone has the same perceptions of TV programs. Those who see TV as being generally realistic would be rated high on this Magic Window variable; those regarding TV as mostly fantasy would be low. People rating high on this variable therefore should be more influenced by its content than would be people rating low on it. Also, although Magic Window is usually thought to be linked to the developmental level of children, there is evidence indicating that people beyond the age of 12 vary on their perceptions of the degree of reality in TV messages.

The Instructional variable has a foundation in Uses and Gratifications research (Blumler and Katz, 1974). People have been shown

to be active users of the media. They have definite needs for information which they use television to attempt to satisfy. It has been clearly established that people in general feel TV is a very credible source of factual information (Abel, 1981; Comstock et al., 1978; Schramm & Alexander, 1973; Tannenbaum, 1968; and Weiss, 1971). Also, it has been been established that people do learn factual information from TV and the more a person exposes him/herself to TV the greater the knowledge about current events. This relationship holds even when the effect of education is controlled. (Comstock et al., 1978; Roberts & Bachen, 1981; and Tan, 1981).

Not all learning is motivated by a need for factual type information. Many viewers are motivated by a need for social type information (such as how to solve problems with friends, interact with others, develop skills at conversation and the like). There is an intensive line of research which indicates that viewers do learn a great deal of social information and have their behaviors shaped by media content. In an early classic study, Bandura, Ross, and Ross (1963) in an experiment on nursery school children found that when children were exposed to aggressive role models on film as in real life they learned that behavior and they were more likely to behave aggressively themselves. The portrayals of the model "effectively shaped the form of the subject's aggressive behavior. The finding that children modeled their behavior to some external after the film characters suggests that pictorial mass media, particularly television, may serve as an important source of social behavior." (p. 9) Bandura (1977) argues that "most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later

occasions this coded information serves as a guide for action." (p. 22) Bandura views TV as an especially important source of learning, because "people today can observe and learn diverse styles of conduct within the comfort of their homes through the abundant symbolic modeling provided by the mass media." (p. 25)

Just as there is a range of feeling about the usefulness of TV for factual information, there is also a range of feeling about using TV for social information. People highly motivated to seek social information should be influenced to a greater degree by the content then would people not seeking such information.

Conceptually the Identity variable includes definitional elements from the two variables, Magic Window and Instructional Motives. People who seek out information from the media will be more influenced by models if those models are portrayed realistically. Realistically portrayed characters are more likely to be role models because their actions are more like the actions the viewers can expect to observe and act out in real life. People can define how realistic TV characters are by making a comparison of those characters with people in their own lives. When people do so, there should be a range of belief. Some people will feel that there is a high degree of match between TV characters and their own friends in life. These people will be regarded as scoring high on the Identity variable, and it is expected that these people should be more susceptible to TV influence. Other people will be found to perceive a low amount of match between TV characters and real people. These skeptical people will be low on the Identity dimension and they should be expected to be relatively closed to TV influence.

It is not claimed here that these variables are the only three or even the best three to use in explicating the cultivation hypothesis. However, these three are felt to be useful because each is locally related to the media effects process and each would provide a measure of differences among individuals.

Measurement: An instrument was developed to measure the three variables. This instrument development was essentially a replication and extension of the work of Hawkins (1977). A total of 65 items was constructed then tested on three groups: 60 adolescents (12 to 16 years of age), 99 college students, and 27 older adults (55 years of age and older). Through a process of testing for reliability it was possible to reduce the total set of items down to a 20-item questionnaire. The reliabilities for the variables were as follows: Magic Window = .826; Instructional, = .847; and Identity,

= .859).

A second instrument, called Society Estimators Questionnaire, was developed to measure subjects' estimates about three areas of society: Crime/Victimization, Causes of Death, and Demographics (marital status, race, gender and occupations in the U.S. population). Two separate studies were conducted. The first study was undertaken using college students as subjects. The second study was conducted using high school students (ninth to eleventh graders).

Study I

Subjects of this study were volunteers in several communication classes at a large midwestern university. First the TV viewing questionnaire was administered during class. Then two weeks later the social estimation questionnaire was administered. In total, 92 useable cases were obtained.

First, scales for Magic Window, Instructional and Identity were tested for internal consistency. The reliability coefficients were acceptable (Magic Window, =.8399; Instructional, = .7515; and Identity, = .8223) (See Table 1).

As a check on the three scales, correlation coefficients were computed between the scale scores and various media usage variables (See Table 2). A subject's score on the Instructional scale is related to the motives of wanting "to learn," "to have friends" and "to get information." It is related to preferences for viewing news variety and game shows. The scale score however is also related to the motives of "to relax," "when lonely," "to forget worries," "for excitement," and "out of habit." It appears that subjects high on the Instructional dimension have two broad motives for viewing TV: one is to get information and the other is to be entertained.

Scores on the Identity scale are related to the motives of "to learn," "to have friends," and "to get information." It is also related to the preferences for viewing family drama shows. This has a clearer interpretation as lending support to the concept of identity as developed earlier in this paper.

Scores on the Magic Window scale are related to the motive "to forget worries," and to preferences for viewing cartoon, adventure and game shows.

The pattern of estimators reveals an apparent heavy influence of the TV world on estimates of causes of death and chances of victimization (See Table 3). Since TV is a mean and violent world, the cultivation hypothesis predicts heavy viewers to have an exaggerated feeling of victimization. Also, TV has a strong emphasis on more violent forms of death such as accidents, homicide and suicide and less on natural causes with heart disease being the cause of death in the majority of cases in real life. The pattern of responses here conform to the cultivation hypothesis. The prediction with the demographic estimates is less clear. There is a general overestimation of the percentage of people single and divorced which conforms also to the cultivation hypothesis. But the remaining figures do not indicate an overestimation.

Subjects were partitioned into three categories on each of the three scales: high, medium and low. Cut points were one standard deviation above and below the mean. Mean scores for social parameter estimates were then computed for each group on each scale. To determine if the group means were significantly different, a series of one way ANOVA's was computed. In only two of the 60 tests were differences significant. Therefore it cannot be concluded from this analysis that different levels of perceivers on any of the three scales are significantly different than other groups in their estimation of societal parameters. Logically there are large differences among estimates of different groups, but the differences are not statistically significant. The reason is because the variation among estimates on these two categories of societal parameters is very large, thus preventing the differences to be large enough to lie outside the 95% confidence intervals.

Partial correlations were computed using the three psychological variables as controls to test the spuriousness of the main relationship between amount of TV viewing and various estimates of society parameters. (See Table 4) In no case did the partial correlation coefficient differ substantially from the zero order correlation coefficient. Relatively strong relationships between the amount of viewing and social estimators were found in only four estimators: the number of single people in the real world, and the chance of being a victim of murder, robbery and assault. Neither the strength nor direction of these zero order correlations changed when controlling for each of the three psychological variables.

Next, the contingent pattern of zero order correlation coefficients between the societal parameter estimates and the amount of TV that subjects watched was examined (See Table 5). A more interesting and complex pattern emerges. In the estimation of victimization by crime, the simple relationship does <u>not</u> hold up for all groups. Only with the subjects rated high on the Magic Window dimension is there a positive relationship between amount of TV viewing and their estimation of victimization. However on the Instructional and Identity scales, the relationship only exists with the subjects in the low groups. With the more violent causes of death, the relationship pattern is the same as with victimization of crime. Subjects on the <u>low</u> groups on Instructional and Identity are more likely to overestimate the percentage of death by accidents. The same pattern holds with estimations of the number of doctors and lawyers.

A second study was undertaken on a different age group and with some added measurement features.

STUDY II

Procedure: Subjects were 270 students enrolled in the ninth, tenth, and eleventh grades of a medium sized public high school. All subjects voluntarily completed the two questionnaires during their regularly scheduled English classes in the Fall of 1983. The TV viewing questionnaire was administered first. Two weeks later all subjects were given the society estimators questionnaire. Data sets were assembled by matching each subject's responses across the two questionnaires.

Results: A total of 237 subjects completed both the first questionnaire on television viewing and the second questionnaire on estimates of society.

The three psychological variable scales were tested for reliability and found to be acceptable. The Cronbach alphas were .821 on the Instructional scale, .802 on the Identity scale, and .767 on the Magic Window (See Table 1).

Averages were computed for all estimations of real world parameters. Results show a sample wide belief in a mean and violent world (See Table 6). The average subject felt there is about a one in five chance of being involved in a fist fight or a car accident and a one in ten chance of being involved in a robbery or a murder. As a check to see if subjects believed TV to be a violent world, subjects also estimated TV world parameters. They also estimate about 27 acts of anti-social behavior (insults, lying, car accidents, robberies and murders) per hour and only about 9 acts of prosocial behaviors (helping and sharing) to be on TV each hour.

The bivariate relationships between amount of TV viewing and beliefs about the world present a rather cloudy picture (See Table 7). There is a relationship of amount of viewing with estimates of suicide and murder. This means that the heavier TV viewers had higher estimations of the percentage of people dying as a result of suicide and murder. These relationships are weak and indicate about the same amount of association as was found in the published results of the Cultural Indicators Project. Taken by themselves, these relationships might indicate support for the Cultivation hypothesis. However, equally strong relationships were found between amount of TV viewing and estimations of the following causes of death: pneumonia, cancer and heart disease. Since death by natural causes is almost never shown on TV, these results would contradict the hypothesis. The set of estimations on chances of being involved in a robbery, murder, fist fight, accident or winning a contest are weakly related to amount of TV viewing, and none of the relationships is statistically significant. Estimations of occurrences of car accidents, murders, jokes, insults and robberies on TV result in statistically significant but very weak relationships with amount of TV viewing.

The test for the three psychological measures being a suppressor variable in the bivariate relationship between amount of viewing and estimations does not result in supportive findings for the hypothesis. Controlling for a subject's scores on Magic Window, Instructional and Identity does not remove any suppressor from the main relationships, since the partial correlations are very similar in magnitude and pattern to the non-partialled correlations.

The test for contingent relationships within groups segmented on perceived reality measures reveals very few statistically significant

relationships. This set of results cannot be treated with much confidence. However, it is possible to speculate on several patterns which seem to be in evidence here (See Table 8). Looking first at the relationships of TV viewing with estimates of chances of being involved in various acts, an interesting pattern appears within the Instructional groupings. The relationships of all five estimates with TV viewing is negative among the high perceivers of reality. Among the medium and low perceivers there is no relationship. This would mean that if a person is moderate or low on the Instructional perceived reality scale, the amount of TV viewing is not related to estimates of chances. However if a person is high on the Instructional scale (has relatively high beliefs in the value of TV to educate him/herself), then the more TV he/she views, the lower the estimate of chances. In short, high perceivers have a decreased feeling of fear and victimization as viewing increases. The same pattern holds, although less cleanly, among the groupings on the Magic Window dimension. Here again, with a few exceptions, the general pattern is that the high perceivers of reality (those people relatively high in their belief that TV presents an accurate, unvarnished picture of real life) have lower estimates of a mean and fearful world with more TV viewing. The general pattern among the groupings on the Identity scale is very different. With Identity, the high perceivers display a weak positive relationship, while the low perceivers show a weak negative relationship. The moderate group shows no relationship. This would mean that among the subjects in the high group (relatively high belief that TV presents characters very much like people in their real life) increase their estimates of violence as they view more TV; among the low perceivers,

estimates of violence about the real world are decreased with greater amounts of viewing.

Among estimates of occurrences of various behaviors on TV, patterns are not as clear, and any analysis on this set of data would be even more speculative.

DISCUSSION AND CONCLUSIONS

A set of four conclusions can be drawn. First, subjects in both studies consistently overestimated the danger of being victimized. The high school students were much higher in their estimates of danger. All subjects also overestimated the percentages on the more violent forms of death, especially accidents and homicide. Both groups greatly underestimated the prevalence of heart disease as a cause of death.

A second conclusion is that this study provides results at a general level which tend to support the cultivation hypothesis. There were zero order correlations between the amount of TV viewed and overestimation of the probability of being victimized. This pattern was clearer with the college subjects.

Third, the partialling out of the possible influence of a subject's score on Magic Window, Instructional Motives and Identity did not change the corresponding zero order correlation coefficients. It does not appear that how a person feels about the believability of TV content, or the amount of social information TV provides, or the degree to which TV characters are like characters in real life influence the main relationship between the amount of TV viewed and estimations of a mean and violent world.

Fourth, and most interesting of the conclusions, the main relationship appears to be a contingent one. The relationship between amount of viewing and estimates sometimes is positive, sometimes negative and sometimes zero depending on whether the person is in the high, medium or low group as defined by the psychological variables.

The Magic Window dimension arrays subjects according to how much they believe TV portrays real life. Here one would expect a pattern of estimation closest to the TV world portrayal especially within the high perceiver group. With high perceivers there is a strong relationship between the amount of TV viewed and estimation of percentages of the marital status measures (married and divorced). Since most of the subjects were unmarried college students, this pattern would indicate a TV world more than their own world. There was also a positive relationship with estimating the number of doctors, lawyers and college teachers, but only the first was statistically significant. There were positive significant correlations with estimation of accidental death and homicide but not natural causes or suicide. The most striking correlations were with estimations of crime victimization. All correlations here were statistically significant and very strong. Finally this group showed a negative correlation with the estimation of the number of large cities. Therefore all patterns within the Magic Window group could be explained by TV's influence on the subject's belief of societal parameters.

In contrast, the low Magic Window group only exhibited one statistically significant relationship. The more a subject in this group watched, the more was the estimation of the percentage of males in this society.

The medium Magic Window group had a pattern opposite the high group on marital status estimation. The more TV a subject in this group watched. the higher the estimation of single people and the lower the estimates on married and divorced people. But the rest of the relationships could be consistent with TV world answers. This medium group displayed a negative relationship with heart and suicide as causes of death. The medium group is mixed in its patterns of relationships making interpretation difficult and premature at this point.

The Instructional dimension arrays subjects according to how much they use TV to seek out social information they feel would be useful in living their own lives. High perceivers are then active seekers and probably active processors of this information. Low perceivers are skeptics who regard TV as having very little or no ability to present characters or situations that would convey any information of use to a viewer. Most of the strong coefficients are within the low group. The more TV these subjects watched the higher the estimations of all professions, death by accident, and victimization by murder, robbery and assault. These are TV world answers. In contrast, the pattern of coefficients with the high group is nearly the opposite. Perhaps subjects in the high group consciously confront the information on TV and consciously discount those parts which they do not feel are useful for their needs. For instance, they may watch a fictional program to seek information on how people build and maintain relationships, and they may be strongly influenced by that type of information. However when they see violence they might compare it with their own real life experience and discount its probability thereby being relatively uninfluenced by that portion of the TV world. The subjects in the low group are skeptics of

TV. On the surface they may scoff at TV as not having any worthwhile information in its fictional programming but as they watch more TV, the TV world may be shaping their world at an unconscious level. Their vulnerability to being influenced by the TV world might increase with TV usage, ironically, because they are unaware of it or unwilling to acknowledge it.

The Identity dimension arrays subjects according to how much they feel the characters on TV conform to real life people or how much those characters are like favored role models for the way the viewer would like to act. High perceivers feel stronger amounts of identity with characters and seek role models on TV. Low perceivers are skeptical and feel TV characters are actors in purely fictional situations. The general pattern here is very similar to the one found with the Instructional scale partitioning. It is the low perceivers conforming to the TV world pattern especially in the areas of professions and victimization by crimes. The same explanation would hold here as with the Instructional groupings. The low group is skeptical but as their viewing increases so does their vulnerability to be influenced by the TV world. The high group is composed of conscious seekers of information and role models. If the information conforms to their needs (which it frequently does or they too would be skeptical), they may use it. But if other kinds of information do not square with their world. more viewing will not erode their ability to discount that information.

In summary, the results of this study generally support the Cultivation hypothesis as it is stated. The relationships between amount of TV viewing and estimates of real world violence are positive but weak. The attempts here to determine if those relationships would become

stronger if examined in conjunction with measures of perceived reality have resulted in not finding associations which are stronger. Perhaps another variable is suppressing the relationship and thus making it spuriously low. Or perhaps another variable can be used to segment viewers into groupings where contingent relationships can be clearly seen. A third possibility also exists. Perhaps the consistently found weak positive relationship is a non-spurious one which is generalized to all possible groupings of TV viewers. This last alternative has the least intuitive appeal. It is hoped that further investigations will be conducted to clarify this intriguing relationship.

REFERENCES

Bandura, A. Social Learning Theory. Englewood Cliffs, N.J.: Prentice-Hall, 1977.

Bandura, A., Ross, D., & Ross, A.A. Imitation of film-mediated aggressive models. Journal of Abnormal and Social Psycholgy, 1963, 66, 3-11.

Berkowitz, L. & Alioto, J.T. The meaning of an observed event as a determinant of its aggressive consequences. Journal of Personality and Social Psychology, 1973, 28, 206-217.

Blumler, J.G, & Katz, E. (Eds.) The uses of mass communications: Current perspectives on gratifications research. Beverly Hills: Sage Publications, 1974.

Bryant, J., Carvath, R.A., & Brown, D. Does heavy television viewing produce anxiety? Or dows anxiety promote heavy television viewing? Paper presented at the Annual Meeting of the International Communication Association, Acapulco, 1980.

Comstock, G.A., Chaffee, S., Katzman, N., McCombs, N., & Roberts, D. Television and Human Behavior, New York: Columbia University Press, 1978.

Gerbner, G., Gross, L., Jackson-Beeck, M., Jeffries-Fox, S., & Signorielli, N. Cultural indicators: Violence profile 9. Journal of Communication, 1978, 28, 176-207.

Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. The "mainstreaming" of American: Violence profile no. 11. Journal of Communication, 1980, 30(3), 10-29.

Hawkins, R.P. The dimensional structure of children's perceptions of television reality. Communication Research, 1977, 4(3), 299-320.

Hawkins, R.P., & Pingree, S. Television's influence on social reality. In D. Pearl, L. Bouthilet, & J. Lazar, (Eds.) Television and behavior: Ten years of scientific progress and implications for the eighties. Washington, D.C.: United States Government Printing Office, 1982, 224-247.

Himmelweit, H.T., Oppenheim, A.N., & Vince, P. Television and the Child. London: Oxford University Press, 1958. Hirsch, P.M. Distinguishing good speculation from bad theory: Rejoinder to Gerbner et al. Communication Research, 1981, 8, 3.

Hughes, M. The fruits of cultivation analysis: A re-examination of the effects of television watching on fear victimization, alienation, and the approval of violence. Public Opinion Quarterly, 1980, 44(3), 287-302.

Newcombe, H. Assessing the violence profile of Gerbner and Gross: A humanistic critique and suggestions. Communication Research, 1978, 5, 264-282.

Noble, G. Effects of different forms of filmed aggression on children's constructive and destructive play. Journal of Personality and Social Psychology, 1973, 26, 54-59. Pingree, S., & Hawkins, R.P. U.S. programs on Australian television: The cultivation effect. Journal of Communication, 1981, 31, 97-105.

Tan, A. TV beauty ads and role expectations of adolescent female viewers. Journalism Quarterly, 1979, 56, 283-288.

Wober, J.M. Televised violence and paranoid perception: The view from Great Britain. Public Opinion Quarterly, 1978, 42, 315-321.

Table 1

Properties of the Three Psychological Variable Scales

Test	Scale		
	Magic Window	Instructional	Identity
Instrument Development (n=186)	= .826 x = 3.59 S.D.= .72	= .847 x = 3.69 S.D.= .77	= .859 x = 3.39 S.D.= .81
Study One (n=92)	= .767 x = 3.93 S.D.= .58	= .821 x = 3.92 S.D.= .57	= .802 x = 3.63 S.D.= .68
Study Two (n=237)	= .839 x = 3.64 S.D.= .63	= .752 x = 3.68 S.D.= .64	= .822 x = 3.28 S.D.= .86

Table 2

Pearson Correlation Coefficients Showing the Relationship between the Three Scales and Television Usage Variables

Variable	Scale		
	Instructional	Identity	Magic Window
Amount of Exposure			
Hours of TV Watched Each Week	-.1010	-.0070	-.0009
Frequency of Watching Types of Shows			
Situation Comedies	.1038	.0132	-.0435
Adventure Shows	.2202*	.0360	.1812*
Variety/Talk Shows	-.0418	.0077	-.0610
Game Shows	.2676*	.1120	.1750*
Soap Operas	-.0108	.0960	-.0034
Cartoons	.2391*	-.0270	.2107*
News & Documentaries	-.0807	.1159	-.0375
Sports	.0154	-.0338	.0052
Movies	.0381	-.0549	.0436
Family Dramas	.1096	.1607*	.0792
News Variety	.1793*	-.0467	.0124
Motives for Watching			
To relax	.1642*	.0083	-.0030
When lonely	.1591*	-.0165	.0519
To learn	.2678*	.2595*	.0045
To forget worries	.2941*	-.1402*	.1201*
For excitement	.1711*	.0943	.1045
To have friends	.2216	.1292*	.0779
To pass the time	.0907	-.0059	.0013
To get information	.1994*	.1558*	-.0159
Out of habit	.1774*	-.0134	.0656

*p .05

Table 3

Estimates of Societal Parameters
For the College Student Subject in Study I

	Real World Figures	TV World Figures	Mean Estimates For All Subjects
Demographics			
% Single	20.0%	25.0%	26.6%
% Divorced	5.8%	7.7%	21.5%
% Black	11.8%	10.0%	23.7%
% Male	48.6%	75.0%	48.0%
# of Doctors	454,000	N.A.	396,500
# of Lawyers	480,000	N.A.	411,000
# of College Teachers	647,000	N.A.	441,000
# of Large Cities	156	N.A.	150.5
Causes of Death			
Heart	50.1%	N.A.	22.1%
Cancers	20.6%	N.A.	23.1%
Accidents	5.5%	N.A.	27.5%
Pneumonia	2.8%	N.A.	5.6%
Suicide	1.4%	N.A.	10.4%
Homicide	1.1%	N.A	16.1%
Victimization			
Murder	11	N.A.	2,491
Rape	41	N.A	3,928
Robbery	276	N.A.	6,474
Assault	312	N.A.	5,853

Table 4

Partial Correlations of Main Relationship
While Controlling for Magic Window, Instructional and Identity

Estimators	Zero Order Correlations	Partial Correlations Controlling for: Magic Window	Instructional	Identity
Demographics				
% Single	.19*	.18*	.19*	.19*
% Divorced	-.02	-.03	-.03	-.03
% Black	-.11	-.11	-.11	-.11
% Male	.06	.06	-.01	.05
# of Doctors	.00	-.01	-.02	-.01
# of Lawyers	-.03	-.03	-.04	-.03
# of College Teachers	-.02	-.02	-.13	-.02
# of Large Cities	-.13	-.13	-.10	-.13
Causes of Death				
Heart	-.14	-.15	-.14	-.14
Cancers	.12	.13	.10	.10
Accidents	.11	.11	.11	.11
Pneumonia	-.06	-.06	-.05	-.06
Suicide	-.13	-.13	-.13	-.13
Homicide	.01	.01	01	.01
Victimization				
Murder	.26**	.19*	.19*	.20*
Rape	.11	.12	.11	.03
Robbery	.23**	.23**	.23**	.24**
Assault	.25**	.25**	.26**	.26**

*Indicates the person product moment correlation was statistically significant at p .05.

Table 5

Contingent Relationships

Correlations Between Amount of TV Viewing an Estimations of Societal Parameters

	Zero Order	Magic Window			Instuctional			Identity		
	Correlations	High	Medium	Low	High	Medium	Low	High	Medium	Low
	(n=86)	(n=21)	(n=43)	(n=22)	(n=23)	(n=40)	(n=23)	(n=23)	(n=40)	(n=23)
Demographics										
% Single	.19*	-.17	.47**	-.06	-.08	.30*	.24	.17	.19	.20
% Divorced	-.02	.37*	-.27*	.05	.04	-.08	.07	.04	-.06	.02
% Black	-.11	.01	-.22	.06	-.08	-.02	-.25	-.05	.04	-.41*
% Male	.06	-.02	-.00	.48*	-.09	-.02	.24	-.10	.05	.23
# of Doctors	.00	.45*	-.29*	.03	-.14	-.25	.40*	-.04	-.30	.54**
# of Lawyers	-.03	.36	-.24	-.07	-.20	-.31	.51**	-.09	-.36	.66**
# of College Teachers	-.02	.24	-.23	.12	.04	-.41	.59**	.22	-.45	.71**
# of Large Cities	-.13	.40*	-.01	-.13	-.17	-.09	-.15	-.17	-.09	-.28
Causes of Death										
Heart	-.14	-.05	-.33	.29	-.06	-.17	-.15	-.17	-.13	-.15
Cancer	.12	-.12	-.21	.06	.05	-.07	-.31	-.07	-.04	-.37*
Accidents	.11	.48*	-.03	.16	.07	-.00	.39*	-.17	.13	.39*
Pneumonia	-.05	-.06	-.11	.13	-.03	-.13	.06	-.07	-.11	.06
Suicide	-.15	.03	-.27*	-.05	-.08	-.30*	-.03	-.20	-.14	-.21
Homicide	-.01	.27*	-.12	-.01	.04	-.03	-.01	-.15	.07	-.03
Victim of Crime										
Murder	.26**	.74**	.04	-.08	-.30	.14	.47*	-.22	.06	.55**
Rape	.11	.78**	-.08	-.11	-.17	.03	.26	-.25	-.07	.32
Robbery	.23*	.73**	-.00	.15	-.33	.10	.57**	-.28	.08	.49**
Assault	.25*	.76**	-.10	.07	-.37*	.11	.51**	-.12	.11	.48*

*Coefficient is statistically significant (p .05) **Coefficient is statistically significant (p .01)

Table 6

Estimates of Respondents in Study Two

Percentages of deaths due to:	Means
Accidents	32.6%
Cancer	19.5%
Homicide	16.6%
Heart Disease	15.1%
Suicide	13.8%
Pneumonia	7.2%
Chances in 100,000 of being involved in:	
Fist Fight	20,092
Automobile Accident	18,754
Robbery	11,738
Murder	10,373
Winning Contest	8,014
Estimation of how each occurs during a 3 hour prime time TV period:	
Number of Insults	26.[illegible]
Number of Jokes	23.[illegible]
Number of Lies	19.0
Number of Acts of Helping	17.0
Number of Acts of Sharing	14.7
Number of Car Accidents	8.6
Number of Robberies	8.5
Number of Murders	7.7

Table 7

Partial Correlations of the Main Relationship
Controlling for Magic Window, Instructional and Identity

	Zero Order Correlations	Partial Correlations Controlling for		
		Magic Window	Instructional	Identity
Causes of Death				
Suicide	.19**	.17*	.18*	.17*
Pneumonia	.22*	.22**	.21*	.23**
Accidents	.09	.08	.09	.08
Cancer	.15*	.15	.15*	.15*
Homicide	.16*	.15*	.15*	.13
Heart Disease	.19**	.18**	.18**	.18*
Chances of Being Involved				
Automobile Accident	-.09	-.10	-.10	-.10
Robbery	-.04	-.04	-.04	-.03
Murder	.02	-.04	-.03	.04
Fist Fight	.01	-.00	-.00	-.00
Estimation of T.V. Occurrences				
Car Accidents	.21**	.21**	.22**	.23**
Murders	.24**	.25**	.26**	.27**
Jokes	.15*	.14	.17*	.15*
Sharing	.13	.13	.14	.13
Insults	.14*	.13	.15	.15*
Robberies	.22**	.21**	.21**	.23**
Lying	.07	.08	.09	.10
Helping	.02	.02	.11	.03

*p .05
**p .01

Table 8

Contingent Relations

	Instructional			Magic Window			Identity		
	High	Medium	Low	High	Medium	Low	High	Medium	Low
Estimates of Causes of Death									
Suicide	.05	.09	-.04	.39	.01	-.07	.06	.11	-.14
Pneumonia	-.17	.21*	-.03	.58	.01	.11	.10	.14	.08
Accidents	-.22	.02	.14	.17	-.08	.15	-.15	.09	.26
Cancer	.23	.18*	-.25	.69	.05	-.08	.22	.17	.22
Homicide	.10	.16	.07	.66	.04	-.09	.11	.16*	.01
Heart Disease	.07	.20	-.02	.78	.07	-.10	.06	.20**	-.12
Chances of Being Involved									
Automobile Accident	-.22	.02	-.04	-.22	-.03	.04	.17	.00	-.16
Robbery	-.22	-.01	.03	-.19	-.06	.07	.14	-.02	-.13
Murder	-.17	.04	.08	.34	.01	-.14	.14	.02	-.17
Fist Fight	-.27*	.03	.11	-.22	-.05	.05	.12	.00	-.09
Winning a Contest	-.24	-.02	-.03	-.41	.03	-.03	-.07	.01	-.11
Estimation of T.V. Occurrences									
Car Accidents	.05	.07	.22	.29	.05	.24	.01	.11	.07
Murders	.08	-.02	.44**	.29	-.01	.27	.05	.01	.21
Jokes	-.06	.14	-.14	-.14	.12	-.39*	.12	.02	.12
Sharing	-.09	-.08	.02	.03	-.08	-.12	.23	-.11	.03
Insults	-.14	.04	.16	-.02	.02	.15	-.20	.03	.16
Robberies	-.16	-.05	.15	.10	-.11	.08	.02	-.16	.03
Lying	-.05	-.05	-.15	.17	-.08	-.12	-.14	-.03	-.21
Helping	-.18	-.07	-.06	.11	-.10	-.11	-.23	-.12	.03
n=	40	128	43	28	141	33	30	140	34